

THE GLOBAL EXPERT  
IN **SOLID STATE RELAY**  
TECHNOLOGY



■ Single Channel Assemblies



■ Four Channel Assemblies



■ Sockets



**crydom**<sup>®</sup>

**DRA & DRS Series**

**C**rydom, a company of Sensata Technologies and global expert in Solid State Relay Technology, has a distinguished record of providing high quality, world class Solid State Relay and Control Products for a variety of heating, lighting and motion control applications. Crydom products, coupled with unparalleled technical support, timely delivery and competitive pricing, provide Crydom's clients with the innovative products and support necessary to succeed in today's competitive and fast paced global markets.

Crydom's extensive selection of standard off-the-shelf products is constantly being updated and expanded through its continuous improvement and aggressive new products development programs. Utilizing state of the art designs, materials and technology, Crydom offers a wide range of AC and DC output SSRs in industry standard Panel Mount, PCB Mount and DIN Rail packages, all meeting global safety and standards agency requirements such as CE, RoHS, UL, IEC, etc.

Bolstered by 4 decades of Solid State Relay operations experience, Crydom also specializes and encourages adapted and fully custom-designed SSR products for nearly any application where unique specifications and optimized performance are critical for success.

Crydom's modern air conditioned purpose-built 100,000 square foot manufacturing facility houses all aspects of its ISO certified operation including Design and Development Engineering, Manufacturing Operations and Quality Assurance, Customer Service, Finance, Marketing and General Management, permitting close coordination of all aspects of Crydom's activities. Applications Engineering and Sales support are both performed in the field to provide Crydom's Customers with the best level of local support possible.

Following rigid design guidelines and standards, Crydom products have set the bench mark for SSR performance and reliability world wide. In addition to award winning designs, Crydom has acquired an impressive list of patents related to SSRs and Solid State Controls, while continuing to create new circuit and technology-related inventions as part of extensive R&D programs.

To learn more about Crydom SSR technology and products, or how an alliance with Crydom can contribute to the success of your project, visit [www.crydom.com](http://www.crydom.com) or contact your authorized Crydom distributor or Crydom Customer Service today.

## ***DIN MOUNTED SOLID STATE RELAYS AND SOCKETS***

### ***Crydom DRA Series DIN mounted SSR Assemblies***

The 35 mm DIN Rail has become a world standard for mounting various components in control cabinets, and now joining Crydom's already extensive line of high power DIN Rail mounted Solid State Relays is the new DRA Series of low and medium power SSRs.

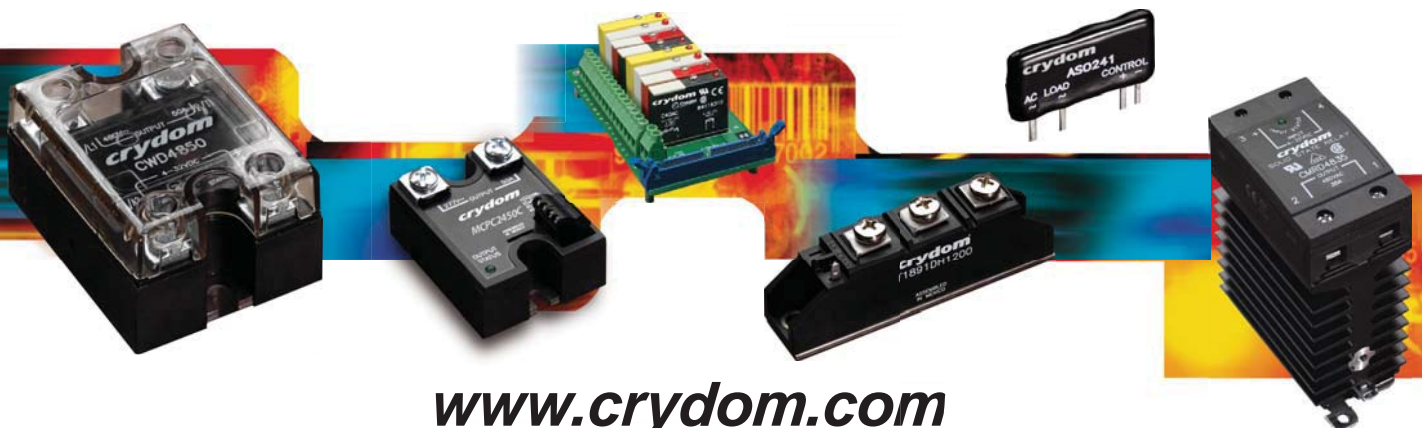
The **DRA Series** combines Crydom's world class AC and DC output PCB mounted Single-in-Line Solid State Relays with 10 and 54 mm wide DIN rail mounted sockets to create the **DRA Series** of SSR Assemblies. The **DRA series** offers a wide variety of ratings which are ideal for low to medium power control for heating, lighting or motion control applications. In addition to the models listed in the catalog, any standard Crydom SIP type SSR with similar pin centers can be offered as an assembly.

### ***Crydom DRS Series DIN Rail Sockets***

**DRS Series** DIN rail mounted socket kits are designed to accept either one or up to four individual Crydom SIP type PCB mounted SSRs with industry standard 1.1 inch/27.9 mm end to end pin spacing. Single channel sockets are 10 mm wide and 4 channel sockets are 54 mm wide.

Each DRS Series socket comes from the factory in kit form which allows the user to select and install the best SSR and input configuration for any particular application. Input status LED indicators and resistors for low range or high range DC inputs are also included in the kit along with instructions for assembly.

For more information, technical support or questions about adapted assemblies, contact your local Crydom Distributor or Regional Sales office.





**DRA Series  
AC/DC Output SSR Assemblies**

- Ready-to-use SSR assemblies for either AC or DC output
- 10 mm Single channel and 54 mm Four channel DIN Rail mount assemblies available
- 3 to 15 or 15 to 32 VDC input versions include LED indicator
- 3 to 32 VDC, 18 to 36 and 90 to 140 AC input control versions do not include LED indicator
- AC output ratings up to 300 VAC @ 8 Amps (UL) and 380 VAC 8 amps (IEC)
- DC output ratings up to 200 VDC and 8 Amps
- Cage style screw terminals for easy and reliable wire connection
- Socket clip fits all standard 35 mm DIN rail profiles

**Standard Assemblies (A)**

**1 channel  
DC output**

	Output Voltage Range VDC	Output Current Range (B) ADC	Control Voltage Range VDC	Input Current @ 5/24 Vdc mA	Input Status Indicator	SSR Function	Isolation Voltage Vrms	Operating Temp. Range °C
DRA1-CMX100D10	1-100	0-8	3-10	15	Yes	SPST-NO	2500	-30 to 80
DRA1-CMX100D6	1-100	0-6	3-10	15	Yes	SPST-NO	2500	-30 to 80
DRA1-CMX200D3	1-200	0-3	3-10	15	Yes	SPST-NO	2500	-30 to 80
DRA1-CMX60D10	1-60	0-8	3-10	15	Yes	SPST-NO	2500	-30 to 80
DRA1-CMX60D5	1-60	0-5	3-10	15	Yes	SPST-NO	2500	-30 to 80
DRA1-CMXE100D10	1-100	0-8	20-28	15	Yes	SPST-NO	2500	-30 to 80
DRA1-CMXE100D6	1-100	0-6	20-28	15	Yes	SPST-NO	2500	-30 to 80
DRA1-CMXE200D3	1-200	0-3	20-28	15	Yes	SPST-NO	2500	-30 to 80
DRA1-CMXE60D10	1-60	0-8	20-28	15	Yes	SPST-NO	2500	-30 to 80
DRA1-CMXE60D5	1-60	0-5	20-28	15	Yes	SPST-NO	2500	-30 to 80
DRA1-MPDCD3	3-60	.02-3	3-32	3	No	SPST-NO	4000	-40 to 80
DRA1-MPDCD3-B	3-60	.02-3	3-32	3	No	SPST-NC	4000	-40 to 80

**1 channel  
AC output**

	Output Voltage Range VAC	Output Current Range (B) Arms	Control Voltage Range VDC	Input Current @ 5/24 Vdc mA	Input Status Indicator	SSR Function	Isolation Voltage Vrms	Operating Temp. Range °C
DRA1-CX240D5	12-280	.06-5	3-15	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-30 to 80
DRA1-CX240D5-B	12-280	.06-5	4-28	15	No	SPST-NC, Zero Voltage Turn-On	4000	-30 to 80
DRA1-CX240D5R	12-280	.06-5	3-15	15	Yes	SPST-NO, Random Turn-On	4000	-30 to 80
DRA1-CX380D5	48-530	.06-5	4-15	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-30 to 80
DRA1-CX380D5R	48-530	.06-5	4-15	15	Yes	SPST-NO, Random Turn-On	4000	-30 to 80
DRA1-CXE240D5	12-280	.06-5	15-32	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-30 to 80
DRA1-CXE240D5R	12-280	.06-5	15-32	15	Yes	SPST-NO, Random Turn-On	4000	-30 to 80
DRA1-CXE380D5	48-530	.06-5	15-32	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-30 to 80
DRA1-MCX240D5	12-280	.06-5	3-15	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-40 to 80
DRA1-MCX380D5	48-530	.06-5	4-15	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-40 to 80
DRA1-MCXE240D5	12-280	.06-5	15-32	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-40 to 80
DRA1-MCXE380D5	48-530	.06-5	15-32	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-40 to 80
DRA1-MP120D3	12-140	.02-3	3-32	3	No	SPST-NO, Zero Voltage Turn-On	4000	-40 to 80
DRA1-MP240D3	24-280	.02-3	3-32	3	No	SPST-NO, Zero Voltage Turn-On	4000	-40 to 80
DRA1-MP240D4	24-280	.02-4	3-32	3	No	SPST-NO, Zero Voltage Turn-On	4000	-40 to 80
DRA1-SPF240A25	12-280	.06-8	90-140 VAC	10	No	SPST-NO, Zero Voltage Turn-On	4000	-30 to 80
DRA1-SPF240D25	12-280	.06-8	3-15	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-30 to 80
DRA1-SPF240D25R	12-280	.06-8	3-15	15	Yes	SPST-NO, Random Turn-On	4000	-30 to 80
DRA1-SPF380D25	48-530	.06-8	4-15	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-30 to 80
DRA1-SPF380D25R	48-530	.06-8	4-15	15	Yes	SPST-NO, Random Turn-On	4000	-30 to 80
DRA1-SPFE240A25	12-280	.06-8	18-36 VAC	10	No	SPST-NO, Zero Voltage Turn-On	4000	-30 to 80
DRA1-SPFE240D25	12-280	.06-8	15-32	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-30 to 80
DRA1-SPFE240D25R	12-280	.06-8	15-32	15	Yes	SPST-NO, Random Turn-On	4000	-30 to 80

**4 channel  
DC output**

	Output Voltage Range VDC	Output Current Range (B) ADC	Control Voltage Range VDC	Input Current @ 5/24 Vdc mA	Input Status Indicator	SSR Function	Isolation Voltage Vrms	Operating Temp. Range °C
DRA4-CMX100D10	1-100	0-8	3-10	15	Yes	SPST-NO	2500	-30 to 80
DRA4-CMX200D3	1-200	0-3	3-10	15	Yes	SPST-NO	2500	-30 to 80
DRA4-CMXE100D10	1-100	0-8	20-28	15	Yes	SPST-NO	2500	-30 to 80
DRA4-CMXE200D3	1-200	0-3	20-28	15	Yes	SPST-NO	2500	-30 to 80

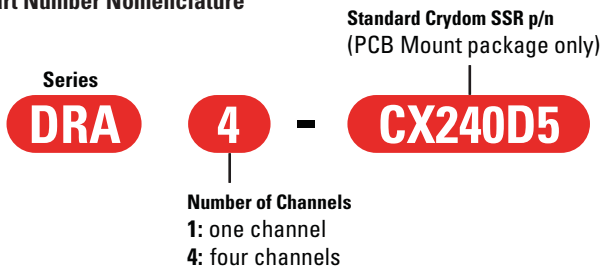
**4 channel  
AC output**

	Output Voltage Range VAC	Output Current Range (B) Arms	Control Voltage Range VDC	Input Current @ 5/24 Vdc mA	Input Status Indicator	SSR Function	Isolation Voltage Vrms	Operating Temp. Range °C
DRA4-CX240D5	12-280	.06-5	3-15	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-30 to 80
DRA4-CXE240D5	12-280	.06-5	15-32	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-30 to 80
DRA4-MCX240D5	12-280	.06-5	3-15	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-40 to 80
DRA4-MCXE240D5	12-280	.06-5	15-32	15	Yes	SPST-NO, Zero Voltage Turn-On	4000	-40 to 80

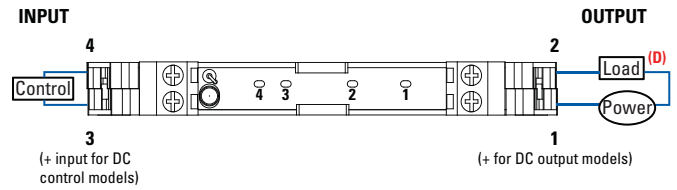
(A) For full SSR specifications see product datasheet at [www.crydom.com](http://www.crydom.com)

(B) Maximum output current rating of any assembly is 8 amps per channel @ 40°C ambient, derating from full output to 0 amps @ 80°C ambient.

### Part Number Nomenclature



### Wiring Diagram (C)



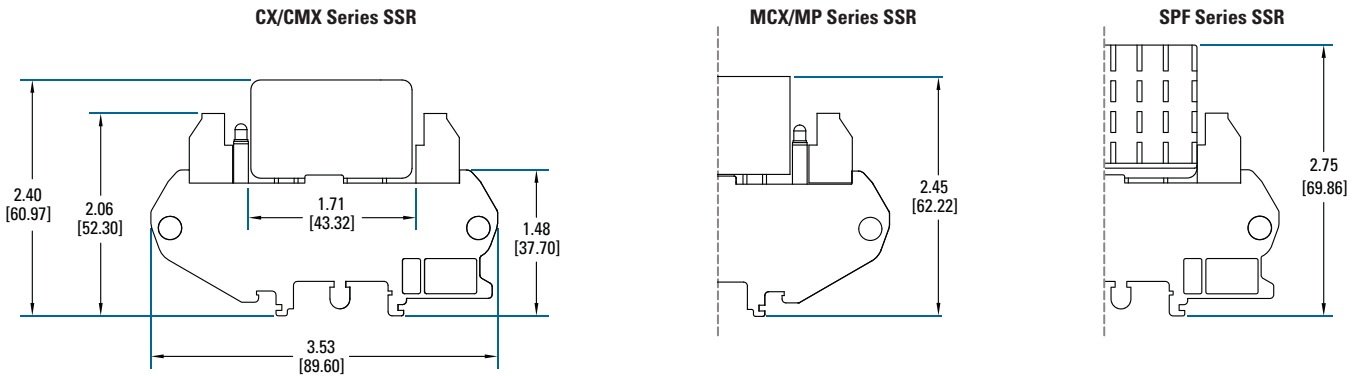
(C) Wiring diagram is identical for each individual section whether it is a single or four channel assembly.

(D) For AC loads, the AC line can be wired to either SSR/socket terminal 1 or terminal 2. The AC load may also be wired on either the line or neutral side of the SSR. For DC loads, the proper polarity must be observed for the power supply, load and SSR/socket with terminal 1 being positive with respect to terminal 2.

### Mechanical Dimensions

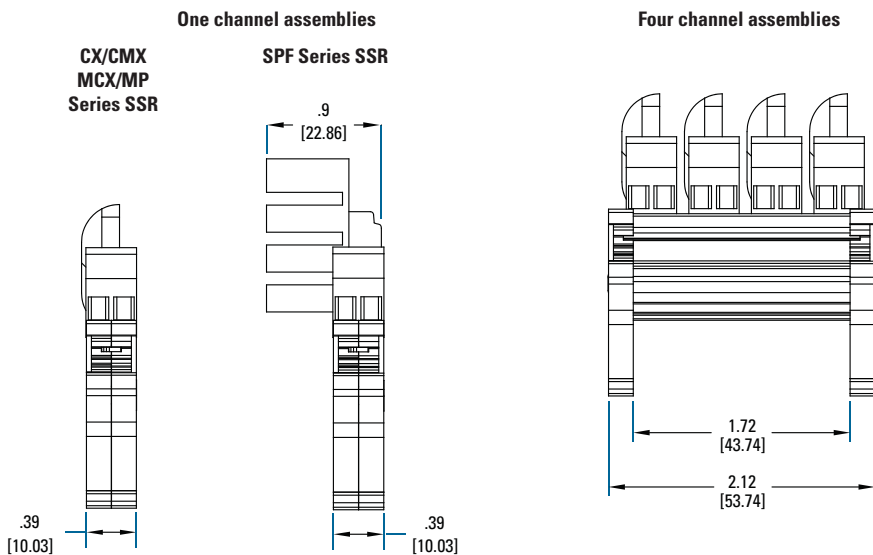
Tolerances:  $\pm 0.02$  in / 0.5 mm  
 All dimensions are in: inches [millimeters]

#### FRONT VIEW

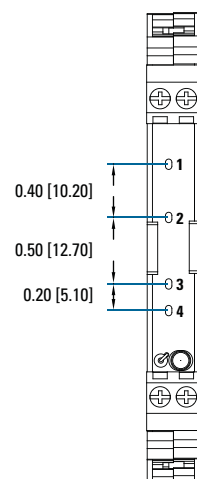


Note: Front view drawings apply to single and four channel assemblies.

#### SIDE VIEW



#### TOP VIEW



To view available Installation Sheet scan the QR code with your smartphone or visit [www.crydom.com](http://www.crydom.com)

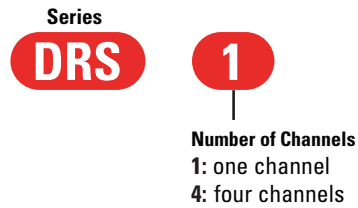




**DRS Series Sockets**

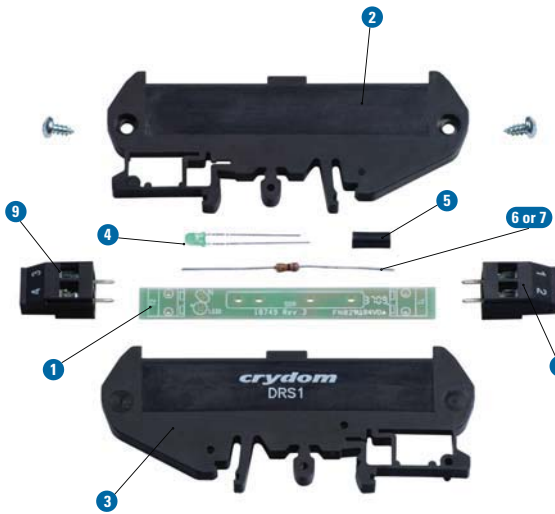
- 10 mm Single channel and 54 mm Four channel DIN Rail mount sockets available.
- Input status LED for either 3 to 15 or 15 to 32 VDC control applications.
- Cage style screw terminals for easy and reliable wire connection.
- Socket clip fits all standard 35 mm DIN rail profiles.

**Part Number Nomenclature**



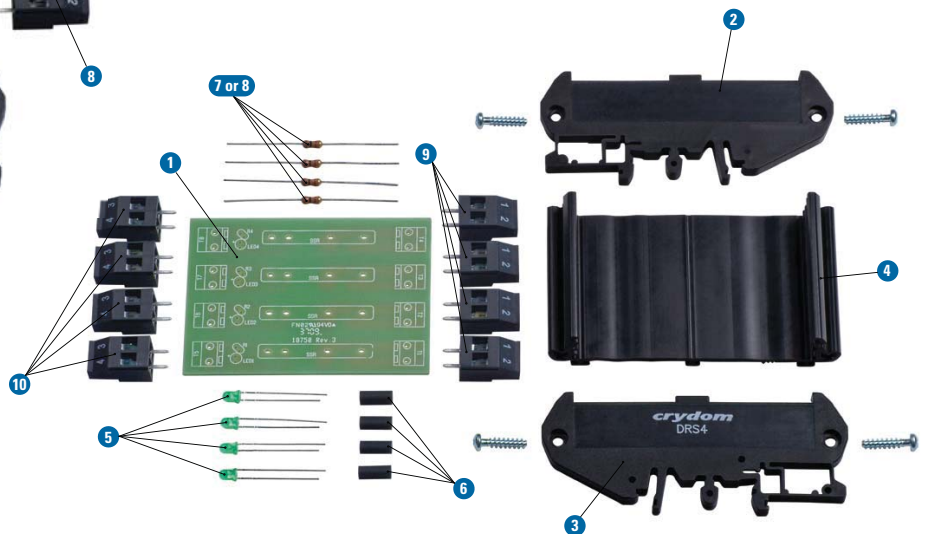
**SINGLE CHANNEL SOCKET**

List of parts included in the kit (E)	Quantity
1 Printed circuit board	1
2 Housing - right side (includes 2 screws)	1
3 Housing - left side	1
4 Green LED (F)	1
5 LED standoff	1
6 Resistor 1K $\Omega$ , 0.25W (brown-black-red) (G)	1
7 Resistor 4.7K $\Omega$ , 0.25W (yellow-violet-red) (G)	1
8 Output terminal block	1
9 Input terminal block	1



**FOUR CHANNEL SOCKET**

List of parts included in the kit (E)	Quantity
1 Printed circuit board	1
2 Housing - right side (includes 2 screws)	1
3 Housing - left side (includes 2 screws)	1
4 Profile extrusion	1
5 Green LED (F)	4
6 LED standoff	4
7 Resistor 1K $\Omega$ , 0.25W (brown-black-red) (G)	4
8 Resistor 4.7K $\Omega$ , 0.25W (yellow-violet-red) (G)	4
9 Output terminal block	4
10 Input terminal block	4



(E) SSR(s) purchased separately.

(F) LED status indicator is not required for proper function of the SSR and may be omitted. No resistors are needed when LED is not installed. For AC input SSR control applications LED status indicator and resistor must not be used.

(G) Each kit includes two different value resistors (1K  $\Omega$  & 4.7K  $\Omega$ ) to choose from. Use 1K  $\Omega$  (brown-black-red) resistor for applications with control voltage range between 3-15 VDC and 4.7K  $\Omega$  (yellow-violet-red) resistor for applications with control voltage range between 15-32 VDC.

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